

Notice of Allowability

Application No.

09/986,479

Applicant(s)

PEARSON ET AL.

Examiner

Art Unit

Jerry Martin Blevins

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed May 16, 2007.
2. ☒ The allowed claim(s) is/are 1-15 and 17-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


BRIAN HEALY
PRIMARY PATENT EXAMINER

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

Applicant's arguments, see pages 7-9, filed May 16, 2007, with respect to claims 1-15 and 17-120 have been fully considered and are persuasive. The rejection of claims 1-15 and 17-19 has been withdrawn.

Allowable Subject Matter

Claims 1-15 and 17-20 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art, as best exemplified by US 2002/0191887 to Bidnyk, teaches an optical performance monitor (Figs. 1,2) for measuring the performance of optical networks, comprising a demultiplexer (AWG 116) for demultiplexing an input beam into a plurality of wavelength channels; an array of divided output waveguides (108,209), each divided output waveguide positioned to receive a corresponding demultiplexed wavelength channel from said demultiplexer, and each divided output waveguide laterally separating said corresponding demultiplexed wavelength into a first portion (108) and a second portion (209); and a detector array

(204) having sensor elements positioned to receive said respective first and second portions of said demultiplexed wavelength channels. However, Bidnyk, alone or in combination with the prior art, fails to disclose or render obvious an undivided output waveguide between adjacent pairs of divided output waveguides, positioned to receive background noise signals having wavelengths between the demultiplexed wavelength channels, the detector array receiving the background noise signals for comparing the intensity of radiation received by the divided output waveguides with the intensity of the noise signal to determine a signal to noise ratio for each of the demultiplexed wavelength channels.

Regarding claim 17, the prior art, as best exemplified by Bidnyk, teaches an optical performance monitor for measuring the performance of optical networks (Figs. 1,2), comprising a planar waveguide demultiplexer (AWG 116) for demultiplexing an input beam into a plurality of wavelength channels (channels 1-12); an array of divided output waveguides (108,209), each divided output waveguide including an opening positioned to receive a corresponding demultiplexed wavelength channel from said demultiplexer, laterally separating said corresponding demultiplexed wavelength channel into a first portion (108) and a second portion (209); a slab waveguide (112) coupling said output waveguides to said planar waveguide demultiplexer; and a detector array (204) having sensor elements positioned to receive said respective first and second portions of said demultiplexed wavelength channels. However, Bidnyk, alone or in combination with the prior art, fails to disclose or render obvious that the wavelength channels have their nominal wavelengths centered on an ITU grid, that each divided

output waveguide includes a waveguide divider forming first and second split waveguide sections, and monitoring means for measuring drift for each wavelength channel by comparing measurements of the first and second portions for each wavelength channel from the array of detectors with predetermined nominal measurements.

Regarding claim 10, the prior art, as best exemplified by Bidnyk, teaches a method of monitoring the performance of an optical network (Figs. 1,2), comprising the steps of demultiplexing an input beam into a plurality of wavelength channels (by demultiplexer 116, into channels 108, 209); receiving said demultiplexed wavelength channels in respective openings of divided output waveguides (108,209), separating each of said demultiplexed wavelength channels into first and second laterally spaced portions (any two of channels 1-12); and detecting the relative intensity of said first and second laterally spaced portions to determine the drift of said demultiplexed wavelengths from nominal values (paragraph 43). However, Bidnyk, alone or in combination with the prior art, fails to disclose or render obvious that the wavelength channels have their nominal wavelengths centered on an ITU and the step of providing a waveguide divider in each of output waveguide, which divides each output waveguide into first and second split waveguide sections.

Claims 2, 4-9, 19, and 20 are allowed based on their dependence from allowed base claim 1.

Claims 3 and 18 allowed based on their dependence from allowed base claim 17.

Claims 11-15 are allowed based on their dependence from allowed base claim 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMB


BRIAN HEALY
PRIMARY PATENT EXAMINER